

REMARKS

Claims 18-25 are currently pending. Claims 1-17 were previously cancelled. Applicant reserves the right to pursue original and other claims in this and in other applications.

The Drawings stand objected to as allegedly failing to show the “image sensor including at least all subcomponents such as a decoder section, pixel section, and signal lines connecting the decoder section and pixel section.” Applicant respectfully traverses the objection and respectfully submits that FIG. 6 shows an image sensor including a pixel section and a decoder section. Thus, the rejection of the drawings should be withdrawn.

Claims 18-25 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Office states that “applicant claims pixel and decoder sections (having features, What features?) as having first and second pitches. How does an entire section have a pitch?” The rejection is respectfully traversed.

Applicant notes that “pitch” is a term conventionally known in the art and is generally known to refer to a size dimension of an object. See, for example, <http://www.micron.com/innovations/imaging/pixel> which refers to “huge pixels (40-micron pitch)” being used for imagers. Thus, a particular section of device or a circuit, e.g., a pixel section or a decoder section, may have a pitch. Thus, Applicant respectfully submits that the claim is definite and the rejection of claims 18-25 should be withdrawn.

In addition, independent claims 18 and 21 have been amended to clarify features of the claimed invention. Claims 18 and 21 clearly define the claimed invention. This is one more reason why the rejection of claims 18-25 under 35 U.S.C. §112, second paragraph, has been overcome.

Claims 18-22 and 24 stand rejected under 35 U.S.C. 102(b) as being anticipated by Hayano (U.S. Pat. No. 5,195,053). The Office indicates that for the purpose of applying this reference “the preamble claim language of an image sensor in claim 18 and dependant claims is not

given patentable weight, since nothing in the body of the claim is tied to an image sensor.”
Applicant respectfully traverses the rejection.

Claim 18 recites:

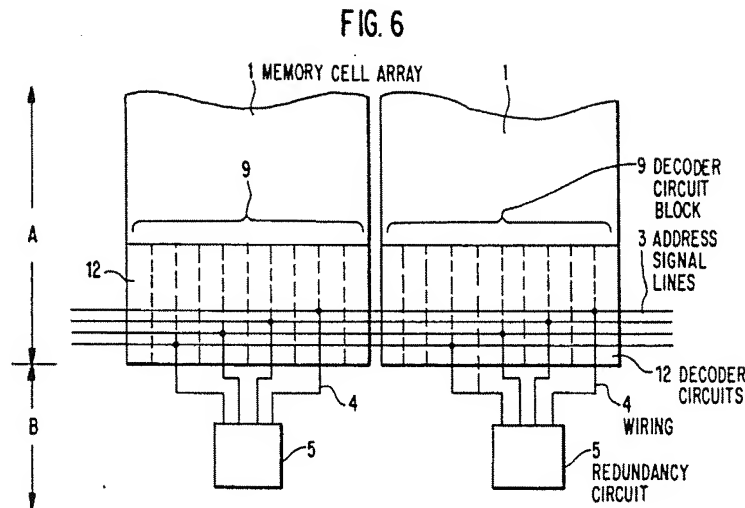
An image sensor comprising:
a pixel section of the image sensor including routing lines, said pixel section having a first pitch, and
a decoder section of said image sensor including routing lines, said decoder section having a second pitch,
wherein the second pitch is smaller than the first pitch.

Hayano discloses that:

a plurality of address signal lines are formed in an upper wiring layer, the plurality of decoder circuits are formed by circuit elements interconnected by a wiring layer in a lower level than the address signal lines and arranged with the same pattern as that of the decoder circuits. A first boundary region of a predetermined width is provided between one decoder circuit pattern and another decoder circuit pattern adjacent to one side of the one decoder circuit pattern, a wider, second boundary region is provided between the one decoder circuit pattern and another decoder circuit pattern adjacent to the other side of the another decoder circuit pattern and wires connecting the address wirings to peripheral circuits are provided in the second boundary region in a level lower than the address wiring level.

(Hayano, abstract)

The Office suggests that Hayano’s FIG. 6, reproduced below, reads on the claimed invention.



As acknowledged by the Office, Hayano is not directed towards an image sensor. Thus, Hayano fails to disclose “a pixel section of the image sensor ... a decoder section of said image sensor.” Since, Hayano does not disclose an image sensor, it does not disclose a pixel, much less a “pixel section.” Nor does Hayano disclose a “pixel section” and a “decoder section.” Thus, the rejection of claim 18 should be withdrawn and claim 18 and its dependent claims allowed over Hayano.

Similarly, with respect to claim 21, Hayano fails to disclose “a pixel section of an image sensor ... a decoder section of said image sensor.” Since, Hayano does not disclose an image sensor, it does not disclose a pixel, much less a “pixel section.” Nor does Hayano disclose a “pixel section” and a “decoder section.” Thus, the rejection of claim 21 should be withdrawn and claim 21 and its dependent claims allowed over Hayano.

Claims 18, 21-22, and 24 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sauer (U.S. Pat. No. 5,336,879). Applicant respectfully traverses the rejection.

Sauer discloses:

...a pixel array having an array of pixel elements, a plurality of row select lines, a plurality of column select lines, and a plurality of signal lines, a pixel element is disclosed for minimizing dead space in an overall imager matrix which includes many pixel arrays. The pixel element includes a phototransducer device for detecting light, transmitting light or emitting light and a pair of series switching transistors coupled between the phototransducer device and a predetermined signal line. In addition, the pixel element includes at least one configurable transistor which is independent of the pair of switching transistors. This configurable transistor is interconnected with other configurable transistors from other pixel elements throughout the array in order to implement desirable functions, for example scanning circuitry, and amplification circuitry such that the dead space of each pixel array and, consequently, the overall imager array is minimized. Dead space around the periphery of the array is minimized allowing multiple arrays to abutted on all four sides to form a relatively large composite imaging array.

(Sauer, abstract)

The Office suggestions that Sauer's FIG. 11, reproduced below, reads on the claimed invention.

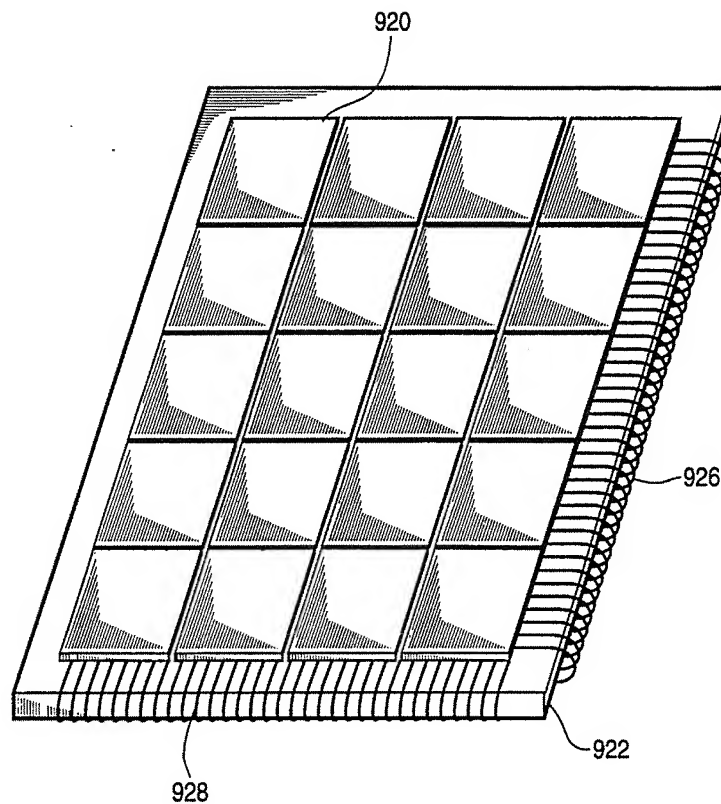


FIG. 11

Elements 920 are pixel arrays. Elements 926 and 928 are X-Y traces for the pixel arrays.

Sauer does not disclose a decoder section. Thus, Sauer fails to disclose a “pixel section” and a “decoder section.” As noted, Sauer only discloses X and Y traces. Thus, the rejection of claim 18 should be withdrawn and claim 18 and its dependent claims allowed over Sauer.

Similarly, with respect to claim 21, Sauer fails to disclose “pixel section” and a “decoder section.” Thus, the rejection of claim 21 should be withdrawn and claim 21 and its dependent claims allowed over Sauer.

Claims 18, 21-22, and 24 stand rejected under 35 U.S.C. 102(b) as being anticipated by Cazaux (U.S. Pat. No. 5,777,672). Applicant respectfully traverses the rejection.

Cazaux discloses:

...a CCD type photosensitive device, the charges produced in two consecutive columns of pixels are transferred into different reading registers: the charges from the first column are loaded into the first register and the charges from the second column travel through the first register to be loaded into the second register. The two reading registers are controlled by independent potentials during the step for the loading of these registers. The device makes it possible to increase the efficiency of the transfer between the two reading registers, especially when the registers are of the type working in a two-phase mode.

(Cazaux, abstract)

The Office suggests that Cazaux' FIG. 2, reproduced below, reads on the claimed invention. P1 are pixel sections and PE1, PE2, of RL1 or RL2 (alleged to be decoder sections) are reading elements. (Cazaux, Col. 5, lines 43-58)

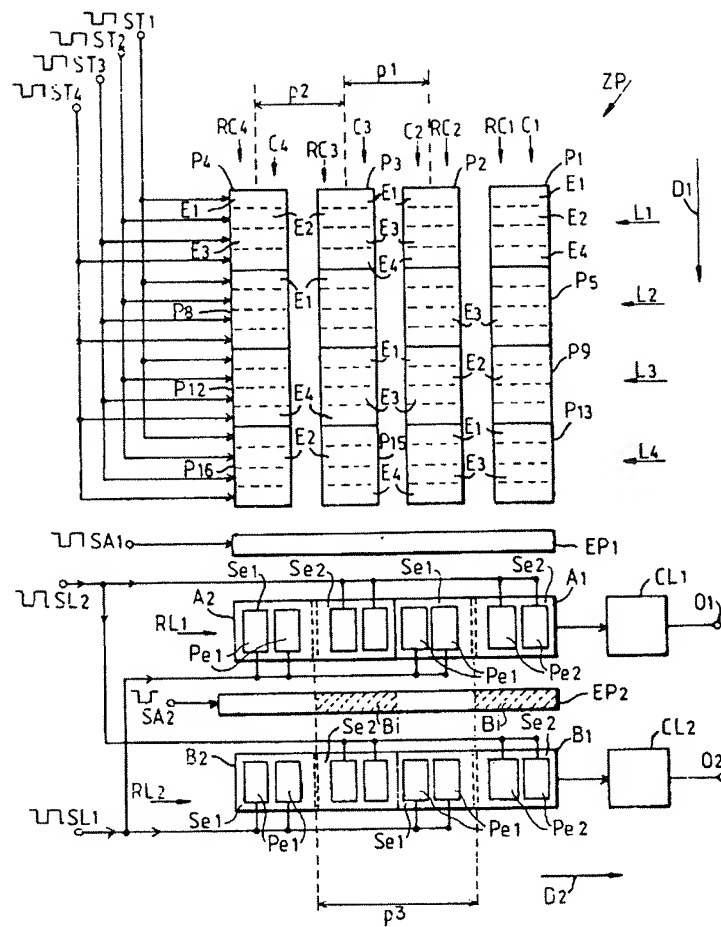


FIG. 1
 PRIOR ART

With respect to claims 18 and 21 Cazaux fails to disclose “decoder sections.” Thus, the rejection of claims 18 and 21 and their respective dependent claims should be withdrawn and the claims allowed over Cazaux.

In view of the above, Applicant believes the pending application is in condition for allowance.

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